

REMARKS

I. Summary of How The Amendment and Remarks are Fully Responsive to the October 22, 2003 Office Action and Advance the Case to Allowance

In order to avoid a potential delay in the allowance of the present application (that the examiner mentions in the 22OCT03 Office Action at page 3, lines 9-11), applicant now cancels claims 10-19 in response to the restriction requirement being made final. Applicant will pursue allowance of these claims via a separate divisional application.

Claim 1 is amended to provide greater specificity regarding the contacts between firm features, as suggested would be favorably considered by the examiner. (See 22OCT03 Office Action at page 5, lines 8-9).

Applicant understands that the examiner presently considers dependent claim 5 to be rejected but allowable if rewritten in independent form including all of the limitations of independent claim 1 from which it depends. (See 22OCT03 Office Action at page 5, lines 11-13). Accordingly, applicant now adds new independent claim 21 which satisfies this prerequisite and therefore should be immediately allowable. Applicant also now adds new dependent claims 22-26 which incorporate at least the limitations of new independent claim 21 and therefore should also be immediately allowable. Applicant respectfully requests that claims 21-26 be allowed forthwith.

Applicant also now vigorously traverses the rejection of claims 1 and 5-9 under 35 U.S.C. §103(a), and respectfully requests that the examiner withdraw the rejection and allow claims 1 and 5-9. If the examiner favorably considers applicant's traversal and decides to allow at least claims 1 and 5, then it will become the applicant's future intent to cancel the newly introduced independent claim 21, and amend dependent claims 22-26 to depend upon unamended dependent claim 5 rather than upon claim 21. This stated future intent by the applicant might be fulfilled by an examiner's amendment issued with the notice of allowance if the examiner so desires.

Applicant understands that the examiner considers claims 2-4 to be presently allowable but for the rejection of generic independent claim 1, so that if generic independent claim 1 is allowed then dependent claims 2-4 "will be rejoined and allowed." (See 22OCT03 Office Action at page 3, lines 1-4). Accordingly, if the examiner favorably considers applicant's

traversal and decides to allow at least claim 1, then applicant respectfully requests that the examiner rejoin and allow claims 2-4, and consider and allow new dependent claim 20.

II. Traversal of the §103 Rejection of Claims 1 and 5-9 on the Merits

Claims 1 and 5-9 presently stand rejected under 35 U.S.C. §103(a) as being unpatentable over Schnitzhofer US 6,209,904 in view of Balmain US 5,782,475. Applicant hereby respectfully traverses this rejection on the several grounds that are described in the following paragraphs, and therefore respectfully requests reconsideration and allowance of claims 1 and 5-9.

A. Grounds for Traversal of §103 Rejection:

1. Claim element absent in both references.

Both the Schnitzhofer and Balmain references commonly lack disclosure of at least one element required by pending claims 1 and 5-9. For example, claims 1 and 5-9 require that the contacts that limit relative translation in the plane of the snowboard, between firm features of the platform retention assembly and firm mating features of the binding support platform, are all tangent about one mutual center point (when projected onto the plane of the snowboard).

Both the Schnitzhofer and Balmain references utterly fail to teach this claim element, neither mentioning any requirement or desirability for all contacts between firm interfacing features to lie tangent about one mutual center point. Indeed, the Balmain reference does not disclose *any* firm features or firm mating features, referring only generally to the use of standard ski bindings “of a known type” (*see* Balmain at column 4, lines 32-33), and the shaping of a linkage plate (100) to “produce the usual profile” of the toe or heel of a ski boot to facilitate the use of such standard ski bindings (*see* Balmain at column 4, lines 44-54).

2. The Schnitzhofer reference explicitly teaches away from the aforementioned absent claim element.

The Schnitzhofer reference explicitly teaches *away* from at least the aforementioned claim requirement required by pending claims 1 and 5-9 because every disclosed embodiment of the Schnitzhofer patent disclosure depicts and describes contacts between firm features that are *not* all tangent about one mutual center point. Although the examiner is correct in pointing

out that two of the firm contacts between the outer edges of the binding carrier plates 2a and 2b and binding base plates 1a and 1b (i.e. those contacts occurring at attached limit stop buffers 12) are tangent about one mutual center point, every embodiment of the Schnitzhofer reference also teaches the inclusion of *other firm contacts that limit relative translation in the plane of the snowboard but are not tangent about the same center point*. For example, the embodiment of Figs. 1-2 of the Schnitzhofer patent includes eight other contacts between the periphery of binding carrier plates 2a and 2b and firm features of binding base plates 1a and 1b (those occurring at attached pins 8a and 8b). Those contacts are not all tangent about a single mutual center point, but rather are arranged so as to constitute a rectilinear lateral guide that allows only relative translation between the binding carrier plates and the binding base plates along the longitudinal axis of the snowboard (*see* Schnitzhofer at column 4, lines 23-26, and Fig. 1). Similarly, the embodiment of Figs. 3-5 of the Schnitzhofer patent includes at least four other contacts between the periphery of binding carrier plates 2a and 2b and firm features of binding base plates 1a and 1b (those occurring at “fixed holding means” 13a and 13b). Those contacts are not all tangent about a single mutual center point, but rather are arranged so as to constitute a guide to limit lateral translation between the binding carrier plates and the binding base plates (*see* Schnitzhofer at column 4, lines 46-47; *see also* Schnitzhofer Figs. 3-5). Indeed it is clear from Schnitzhofer Fig. 3 that the three contacts depicted between firm features of binding carrier plate 2a and binding base plate 1a (i.e. those at “fixed holding means” 13a and at limit stop buffer 12) are not tangent about the same mutual center point as the three other contacts depicted between firm features of binding carrier plate 2b and binding base plate 1b (i.e. those at “fixed holding means” 13b and at limit stop buffer 12).

The above-described geometric aspects of the Schnitzhofer patent embodiments, each of which teaches away from the aforementioned limitation of pending claims 1 and 5-9, do not appear in the Schnitzhofer reference incidentally. Rather, the text in the Schnitzhofer patent disclosure deliberately explains why the above-described geometric aspects must be included in order to accord with the basis of the Schnitzhofer invention which, unlike the inventions of the pending claims, eschews torsional release of the bindings:

This object is achieved in accordance with the invention in such a way that guide elements are provided on the binding base plates which allow the release of the binding carrier plate only in the longitudinal direction of the snowboard. The invention is based on the finding that the torsional strain of the legs of a snowboard

rider does not represent an actual value. Riding or falling scenarios which exclusively entail an excessively large torsional strain of the rider's legs do not occur in practice or only to a negligible extent. Situations are more critical in which intolerable forces are exerted in the longitudinal direction of the snowboard. This is the case, for example, when the snowboard is abruptly stopped at high speeds by an obstruction or lands on a hard spot after a jump with the forward or rearward end. Excessive torsional strains occur as an accompanying phenomenon in such situations, if at all, so that a binding which releases as a result of the longitudinal forces is sufficient in order to cope with the dangerous situations that occur in practice.
(Schnitzhofer at col. 1, line 58 - col. 2, line 9)

It is clear from the preceding quote that even if Schnitzhofer had considered arranging all of the contacts between firm features that limit in-plane relative translation in his invention to be tangent about a mutual center point, that idea would have been rejected as being against the principle that the Schnitzhofer "invention is based on." After all, if all of the contacts between such firm features in the Schnitzhofer invention were tangent about a single mutual center point, such contacts might allow in-plane torsional release rather than "allow[ing] the release of the binding carrier plate only in the longitudinal direction of the snowboard." (Schnitzhofer at col. 1, lines 60-62).

Thus, the Schnitzhofer reference expressly teaches away from *at least* the aforementioned limitation of the inventions of pending claims 1 and 5-9. Of course, nothing in this response should be construed to limit other ways in which the Schnitzhofer reference teaches away from the inventions of pending claims 1 and 5-9, or other ways in which the Schnitzhofer reference is distinguishable from the inventions of pending claims 1 and 5-9 (e.g. the fact that binding carrier plates 2a and 2b in the Schnitzhofer disclosure are separate plates each accommodating only a single binding rather than being disclosed as a single binding support platform fashioned to enable fastening of both bindings).

3. It is not proper to combine the Schnitzhofer and Balmain references in support of a rejection under 35 U.S.C. §103(a).

a. There is nothing in the Schnitzhofer and Balmain references that suggests or motivates their combination.

Both the explicit and implicit teachings of the Schnitzhofer and Balmain references demonstrably lack any suggestion or motivation for their combination. Even a suggestion to combine motivated by hindsight informed by the applicant's invention disclosure could not

survive a detailed review of the teachings of the Schnitzhofer and Balmain references, because the references implicitly teach away from such combination (as described next).

b. Combining the Balmain reference with the Schnitzhofer reference would be destructive to the *intent and purpose* of the Schnitzhofer invention.

The Schnitzhofer invention is explicitly intended “to provide a binding for snowboards which is optimally adjusted to the special kinematic properties and those of the dynamics of movement of such a sports device.” (Schnitzhofer at col. 1, lines 52-54). One of the ways that the Schnitzhofer reference distinguishes bindings that are appropriate for the special kinematic properties of snowboards versus bindings that are appropriate for skis, is based on the generally lateral stance of the snowboarder. For example, the Schnitzhofer patent specification states at col. 1, lines 22-26: “However, as the rider of a snowboard stands with both legs transversally to the longitudinal axis of the snowboard, or diagonally on the same, the requirements placed on such a safety binding differ from those in the case of skiers.”

In contrast, the Balmain reference explicitly teaches a device for gliding on snow in which the user’s feet are placed generally longitudinally (less than 20 degrees deviation from the longitudinal axis) and where “the user’s feet are positioned substantially one behind the other.” (See Balmain at col. 1, lines 42-61). The generally longitudinal placement of the user’s feet in the Balmain reference is a teaching that is incompatible with the way that the Schnitzhofer reference distinguishes the snowboard applications to which it is directed versus ski applications to which it is not directed. (See Schnitzhofer at col. 1, lines 22-26).

Furthermore, the Balmain reference explicitly teaches the use of standard ski safety bindings of a known type (see Balmain at col. 4, lines 32-33) that are employed by cutting away a linkage plate to create the “usual profile” of the toe or heel of “a *ski* boot”. (See Balmain at col. 4, lines 44-54, emphasis added). In contrast, the Schnitzhofer reference explicitly teaches that standard ski safety bindings allow for torsional release and are inadequate for snowboards: “The release of the binding occurs through a torsional moment about the normal axis, as is also known in ski bindings. The special properties of a snowboard in comparison with skis are not taken sufficiently into account in such a safety binding.” (See Schnitzhofer at col. 1, lines 35-37).

Therefore, it is clear from the cited portions of the Schnitzhofer and Balmain disclosures that the use of standard ski safety bindings of a known type, as taught by the Balmain reference, would be destructive to the stated *intent and purpose* of the invention that is disclosed in the Schnitzhofer reference.

- c. **Moreover, combining the Balmain reference with the Schnitzhofer reference would be destructive to the *function* of the Schnitzhofer invention.**

The use of standard ski safety bindings of a known type, as taught by the Balmain reference, would be destructive to the *function* of at least the guide elements in the Schnitzhofer invention. The function of those guide elements satisfies the very basic teaching of the Schnitzhofer invention to restrict the release of the binding carrier plate to occur “only in the longitudinal direction of the snowboard” and not torsionally (see Schnitzhofer col. 1, line 58 - col. 2, line 9). In contrast, the Schnitzhofer disclosure characterizes ski bindings as allowing torsional release and being inadequate for snowboard applications. (See Schnitzhofer at col. 1, lines 35-37).

One of the reasons why the function of the Schnitzhofer invention is restricted to releasing the binding carrier plate only in the longitudinal direction of the snowboard, and not torsionally, is a stated concern about preventing erroneous releases:


In contrast to a ski, a snowboard is arranged so as to receive relatively large torsional strains about the release axis. An experienced rider will actively use the torsion to influence the riding behavior by exerting opposing tilting moments on the bindings. During this it is possible to cause a torsion of up to 20°. In addition, the board is deflected under load. In order to prevent twisting or erroneous releases by the rigid connection by the connecting link 6, the binding base plate on the snowboard is arranged displaceable within limits in the longitudinal direction on the snowboard.
(Schnitzhofer at col. 3, line 66 – col. 4, line 8).

However this function of the Schnitzhofer invention (in meeting the stated concern to avoid erroneous binding releases) would be destroyed if standard ski safety bindings of a known type, as taught by the Balmain reference, were used. Note that the Balmain reference teaches that the feet be placed closely enough together (i.e. less than 100mm apart heel to toe) for the linkage plate 100 to present itself to a standard ski safety binding in the guise of a single ski boot. (See Balmain at col. 4, lines 44-54). The Schnitzhofer invention, however, specifies

that the rider take a generally lateral stance so that the spacing between the rider's feet and therefore the rider's leverage to apply torsional forces is significantly increased. (See Schnitzhofer at col. 1, lines 22-26, and at col. 3, line 66 – col. 4, line 8.) Therefore, the use of a standard ski safety binding that is designed to allow for torsional release of a single foot, as taught by Balmain, would clearly defeat the disclosed function of the Schnitzhofer invention to avoid the propensity for erroneous torsional release under lateral-stance snowboarding circumstances which are characterized by higher torsional forces.

Respectfully submitted,


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 2/26/04
Wendy Jones Date